

C L A I M S

What is claimed and desired to be secured by Letters Patent is as follows:

1. A growth promoting implant for placement in a solid bio-accessible form under the skin of an animal, said implant comprising:
- a) a growth stimulating agent; and
 - b) a supplemental agent that cooperates with said growth stimulating agent to promote growth.
2. The implant according to Claim 1 wherein:
- a) said growth stimulating agent is selected from the group consisting of trenbolone acetate, estradiol, estradiol benzoate, zeranol, testosterone propionate, progesterone, mixtures and bio-effective derivatives thereof.
3. The implant according to Claim 1 wherein:
- a) said supplemental agent is chosen from the group consisting of parasiticides, estrus suppressing compositions, antibiotics, somatotropins, gonadotropins and mixtures thereof.

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4. The implant according to Claim 3 wherein:
 - a) at least one of said agents includes both an immediate release component and a time delayed component.
5. The implant according to Claim 3 wherein:
 - a) said supplemental agent is a parasiticide.
6. The implant according to Claim 5 wherein:
 - a) said parasiticide is chosen from the group consisting essentially of ivermectin, abamectin, doramectin, moxidectin, milbemyacin oxime, fenbendazole, and oxfendazole.
7. The implant according to Claim 5 wherein:
 - a) said parasiticide is present in both an immediate release portion and a time delayed portion.
8. The implant according to Claim 1 wherein:
 - a) said growth stimulating agent is estradiol benzoate in a dosage amount in the range from about 5 to 50 milligrams per implant; and

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b) said supplemental agent is ivermectin in a dosage amount in the range from about 100 to 500 milligrams per implant.

9. The implant according to Claim 1 wherein:

a) said growth stimulating agent and said supplemental agent are mixed in at least one pellet of said implant.

10. The implant according to Claim 1 wherein:

a) said growth stimulating agent and said supplemental agent are in separate pellets of said implant.

11. The implant according to Claim 3 wherein:

a) said estrus suppressing composition is chosen from the group consisting essentially of melengestrol acetate, norgestomet, other progestins, mixtures and bio-effective derivatives thereof.

12. The implant according to Claim 11 wherein:

a) said growth stimulating agent is trenbolone acetate in a dosage amount in the range from about 20 to 400 milligrams per implant; and

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- b) said estrus suppressing composition is
melengestrol acetate in a dosage amount in the
range from about 10 to 100 milligrams per implant.
- 13. The implant according to Claim 3 wherein:
 - a) said antibiotic is selected from the group
consisting essentially of tylosin tartrate,
tylosin, oxytetracycline, tilimicosin phosphate,
ceftiofur hydrochloride, ceftiofur sodium,
sulfadimethoxine, mixtures and bio-effective
derivatives thereof.
- 14. The implant according to Claim 13 wherein:
 - a) said growth stimulating agent is estradiol in a
dosage amount in the range from about 5 to 50
milligrams per implant; and
 - b) said antibiotic is tilimicosin phosphate in a
dosage amount in the range from about 500 to 1500
milligrams per implant.
- 15. The implant according to Claim 3 wherein:
 - a) said supplemental agent is a somatotropin selected
from the group consisting essentially of bovine

somatotropin and porcine somatotropin, mixtures and bio-effective derivatives thereof.

16. The implant according to Claim 15 wherein:

- a) said growth stimulating agent is estradiol and said supplemental agent is bovine somatotropin.

17. The implant according to Claim 3 wherein:

- a) said supplemental agent is a gonadotropin selected from the group consisting essentially of luteinizing hormone, follicle stimulating hormone, gonadotropin releasing hormone, commercial analogs thereof, mixtures and bio-effective derivatives thereof.

18. The implant according to Claim 17 wherein:

- a) said growth stimulating agent is estradiol; and
- b) said supplemental agent is luteinizing hormone.

19. A method for providing enhanced physiological growth in an animal; said method comprising:

- a) providing an implanter apparatus for implanting pellets in an animal through the bore of a

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hypodermic needle which is operably coupled to a pellet magazine;

- b) loading the pellet magazine with a pelletized implant including a growth stimulating agent dose and a supplemental agent dose;
- c) inserting the hypodermic needle under the skin of the animal and injecting the implant into the animal; and
- d) withdrawing the hypodermic needle from under the skin of the animal so as to leave the implant beneath the skin.

20. The method according to Claim 19 including the step of

- a) selecting said supplemental agent from the group consisting essentially of parasitocides, antibiotics, estrus suppressing compounds, somatotropins, gonadotropins, mixtures and bio-effective derivatives thereof.

21. The method according to Claim 20 including the steps of:

- a) selecting a parasiticide as said supplemental agent from the group consisting essentially of ivermectin, avermectin, abamectin, doramectin,

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- a) including a growth stimulating agent and a supplemental agent in a single injection.
27. In an implant adapted for subcutaneous implantation in an animal by an implanter apparatus through the bore of a hypodermic needle which is coupled to a pellet magazine, the improvement comprising:
- a) said implant including at least one pellet sized and shaped to be implanted through the needle and positioned in the magazine for selective alignment of the implant with the needle; and
 - b) said implant including a parasiticide agent dose and a growth stimulating agent dose.
28. The implant according to Claim 27 wherein the parasiticide agent dose includes a composition selected from the group consisting of an avermectin, milbemycin, oxime, fenbendazole, oxfendazole, lufenuron, mixtures and bio-effective derivatives thereof.
29. The implant according to Claim 27 wherein the parasiticide agent comprises ivermectin.

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30. The implant according to Claim 27 wherein the growth stimulating agent dose comprise compositions selected from the group consisting of trenbolone acetate, estradiol, estradiol benzoate, zeranol, testosterone propionate, and progesterone.
31. The implant according to Claim 28 wherein said parasiticide agent is present in:
- a) an immediate release agent pellet including a disintegration agent; and
 - b) an extended release agent pellet including a bioerodible matrix.
32. An implant for subcutaneous implantation in an animal comprising:
- a) at least one discrete parasitocidal agent pellet dose; and
 - b) at least one discrete growth stimulating agent pellet dose; all of said pellets being combined in a single unit for implantation side by side into the same site.

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